

Light-Pipe Arrangement With Reduced Fresnel-Reflection Losses

Abstract of the Disclosure

A solid light pipe arrangement with reduced Fresnel-reflection losses includes a light pipe with a solid core comprising a polymer. An optically clear substrate has first and second sides with an anti-reflective coating on at least one side. The substrate is adhered to an end-face of the core of the light pipe by adhesive material so as to create an optically clear interface between the substrate and the end-face that passes more than about 96 percent of transmitted light. A preferred method of applying an anti-reflective coating to an end-face of a core of a solid, polymeric light pipe comprises diverting uncrosslinked polymer used for forming a light pipe core, and using the diverted polymer as adhesive material between a substrate with at least one antireflective coating and the end-face of a light pipe having the same polymeric components, in the same proportions, as the diverted polymer.